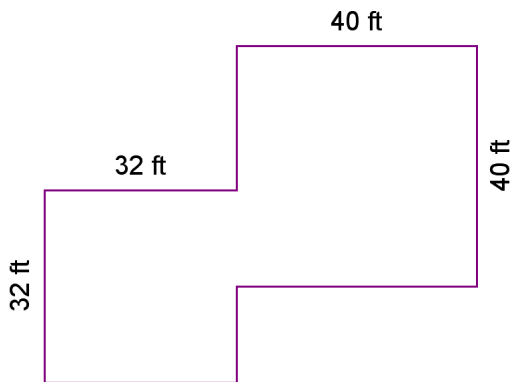


PRACTICE Final Exam - Strategies In Math -Tri 3 2014 - Wiltsie*Solve the equation. Then check your solution.*

- 1) $\frac{d}{36} = \frac{8}{9}$
A. 41
B. 64
C. 32
D. 16
- 2) $-4x - 19 = -11$
A. -2
B. 2
C. $7\frac{1}{2}$
D. $21\frac{3}{4}$
- 3) $\frac{v}{4} = 28$
A. 112
B. 24
C. -112
D. 32
- 4) Assume that the parent graph is $y = x^2 + 6$. Write the equation of the parabola that would move it down 3 units.
A. $y = (x - 3)^2 + 6$
B. $y = (x + 3)^2 + 6$
C. $y = x^2 + 9$
D. $y = x^2 + 3$
- 5) This is an outline of the Mancini's house with the dimensions shown in feet.

Area of a rectangle = length \times width

Area of a square = side \times side



What is the area of the Mancini's house?

- A. 2,600 square feet
B. 2,560 square feet
C. 2,624 square feet
D. 5,184 square feet

- 6) Lung made 12 mistakes on his first typing exam, but only made 9 mistakes on his next exam. What is the percent decrease in mistakes from the first exam to the second? Round your answer to the nearest tenth if necessary.
- A. 25% C. 400%
B. 14.3% D. 33.3%
- 7) Mr. Ortiz brought 8 yards of yarn to geometry class this morning and cut it into 12 equal sections to use in the lesson. What was the length in **feet** of each section of yarn?
- A. 0.7 foot C. 2 feet
B. 1.3 feet D. 4.5 feet
- 8) What is the equation of the parabola that moves the parent graph $y = x^2$ to the left 4 units?
- A. $y = (x - 4)^2$ C. $y = x^2 - 4$
B. $y = (x + 4)^2$ D. $y = x^2 + 4$

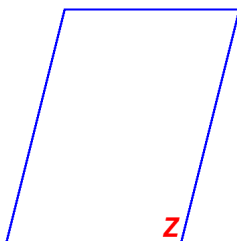
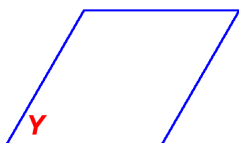
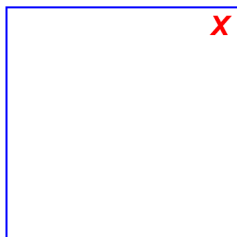
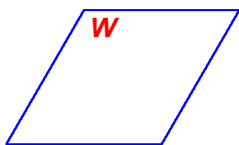
Use the scale 1 foot = $\frac{2}{3}$ inch for the following problems.

- 9) If my couch is 48 inches long, what is the scaled length of the couch?
- A. 32 inches B. 4 inches C. $2\frac{2}{3}$ inches D. 6 inches
- 10) Find the scaled dimensions of a room that is 18'x21'.
- A. 12''x14'' C. 27''x31.5''
B. 12.6''x14.7'' D. 3''x3.5''
- 11) A desktop computer retails for \$750. What is the total cost of the computer after a sales tax of 5% is applied?
- A. \$39.00 C. \$787.50
B. \$37.50 D. \$712.50
- 12) My living room is 18'x14'. The flooring I want to use covers 14.6 square feet per case. How many cases of flooring do I need to buy to cover the entire floor?
- A. 252 cases B. 17 cases C. 18 cases D. 15 cases
- 13) Beth receives a discount of 15% off of her purchases at an art supplies store since she teaches art at Willows Middle School. How much will her discount save her on a purchase that would ordinarily retail for \$28?
- A. \$0.42 C. \$23.80
B. \$7.30 D. \$4.20

Name: _____

ID: A

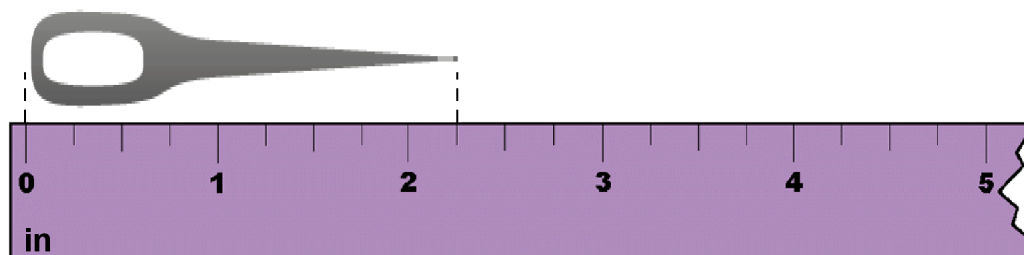
14) Which angle is the acute angle?



- A. Y
- B. Z

- C. W
- D. X

15) What is the length of the needle to the nearest $\frac{1}{4}$ inch?



- A. 2 inches
- B. $\frac{1}{4}$ inches

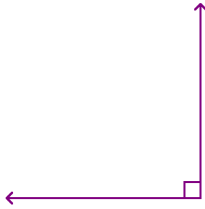
- C. $2\frac{3}{4}$ inches
- D. $2\frac{1}{4}$ inches

16) Which of the following angle measures represents a straight angle?

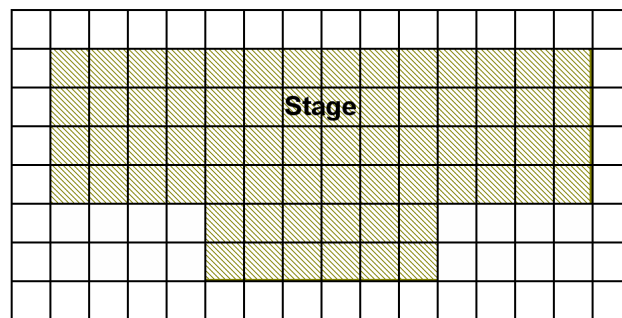
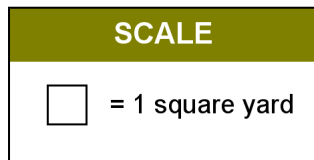
- A. 107°
- B. 180°

- C. 90°
- D. 83°

- 17) Classify the following angle as acute, obtuse, right, or straight.

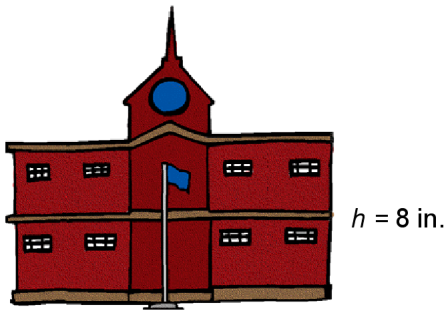


- A. right
B. obtuse
C. straight
D. acute
- 18) What is the vertex of $y = 5(x - 3)^2 + 7$?
A. $(5, 7)$ B. $(3, 7)$ C. $(-3, 7)$ D. $(3, 5)$
- 19) The shaded part of the grid below is a plan for a stage. Each square on the grid represents 1 square yard. What is the area of the stage?



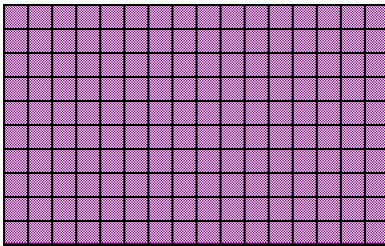
- A. 36 square yards
B. 68 square yards
C. 52 square yards
D. 58 square yards
- 20) My recipe calls for $1\frac{1}{2}$ cups of flour. If I want to make a triple batch, how much flour will I need?
A. $4\frac{1}{2}$ cups B. $3\frac{1}{2}$ cups C. $3\frac{1}{4}$ cups D. $3\frac{3}{4}$ cups
- 21) In a recent survey, 55% of those responding said they feel that they do not have enough free time. If there were 1300 people surveyed, how many of them responded that they feel this way?
A. 715 C. 55
B. 1300 D. 585
- 22) Anthony bought a hat that was originally priced at \$16.75. The hat was advertised to be on sale for 15% off the regular price. What was the sale price that Anthony paid for the hat?
A. \$14.24 C. \$15.91
B. \$19.26 D. \$16.50

- 23) Christine drew a sketch of the front of a school building for art class. In the drawing, the height of the school is 8 inches. If the scale of the drawing is 1 inch = 4 feet, what is the actual height of the school building?



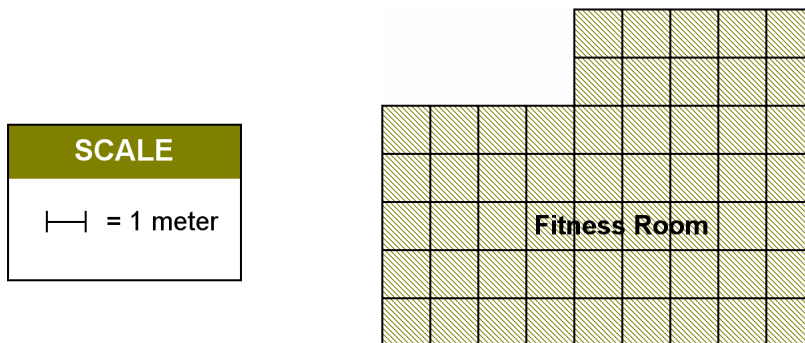
- A. 16 feet
B. 2 feet
C. 64 feet
D. 32 feet
- 24) Chet is ordering a new rug for his living room. He needs to know the area of the living room. Each square in the grid is one square foot. The length of the room is 16 feet and the width is 10 feet. What is the area of the living room?

Living Room



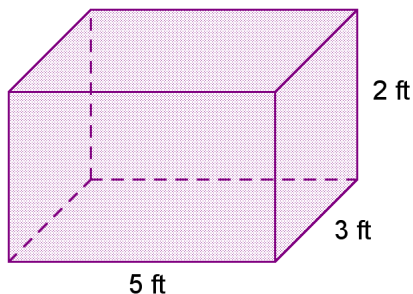
- A. 160 square feet
B. 150 square feet
C. 52 square feet
D. 26 square feet
- 25) Craig helped wash cars to raise money for his class trip. During the first hour, he worked with 5 friends and collected \$77.00. Each student received an equal amount of the money raised. Before distributing the money, he paid the school \$5.00 for the soap and supplies used. How much did Craig earn in the first hour?
- A. \$14.40
B. \$15.40
C. \$12.00
D. \$12.83
- 26) Diana made 11 out of the 25 shots that she took during her basketball game. What percentage of her shots did Diana make in this game?
- A. 0.44%
B. 44%
C. 56%
D. 0.56%

- 27) The diagram below is a floor plan for a fitness room. Each side of a square represents 1 meter. The builder is putting lights around the edge of the ceiling.



What is the perimeter of the fitness room?

- A. 16 meters
B. 63 meters
C. 23 meters
D. 32 meters
- 28) How many times larger is 0.2 than 0.002?
A. 1,000
B. 100
C. 200
D. 10
- 29) Find the area of a room that is 9'6'' by 11'3''.
A. 108.48 sq ft B. 90.26 sq ft C. 106.875 sq ft D. 117 sq ft
- 30) An ice chest is shaped like a rectangular prism with a base that is 5 feet by 3 feet and a height of 2 feet. How many cubic feet of ice could the chest hold?



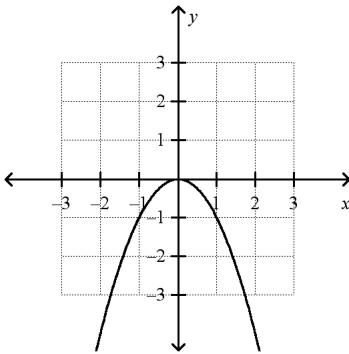
- A. 16 cubic feet
B. 62 cubic feet
C. 30 cubic feet
D. 10 cubic feet
- 31) Natalie bought 2 DVDs for \$18.95 each and a DVD player for \$79.99. After sales tax, her total came to \$123.78. What is the sales tax rate? Round your answer to the nearest hundredth, if necessary.
A. 8.4%
B. 25.11%
C. 5%
D. 6%
- 32) The length of a rectangular room is 9.6 m and its width is 6.1 m. Find the area of the room.
A. 92.16 m²
B. 58.56 m²
C. 37.21 m²
D. 31.4 m²

- 33) The subtotal of a customer's order was \$55.02 after using a coupon good for 5% off. Which of the following operations could be used to calculate the total price before the discount was applied?
- A. multiply the subtotal by 0.05 C. multiply the subtotal by 0.95
 B. divide the subtotal by 0.95 D. divide the subtotal by 0.05

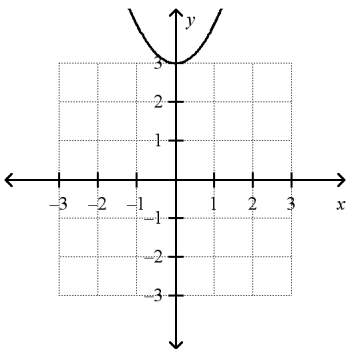
Graph the function.

34) $y = -x^2 + 3$

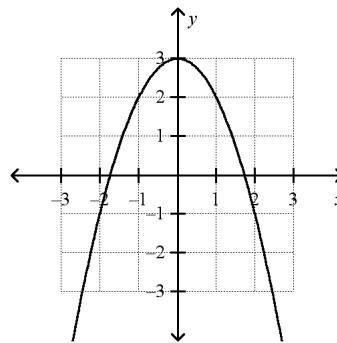
A.



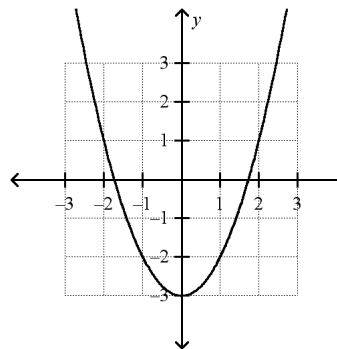
B.



C.



D.



- 35) Keith is planning the time he needs to type and print his book report for English class. The report is 9 pages long. It takes Keith 25 minutes to type and check each page and another 2 minutes to print each page. How much time will it take altogether to do these two jobs? Express your answer in hours.



- A. 3.75 hours C. 4.05 hours
 B. 4.3 hours D. 0.3 hours
- 36) If a 3-foot long submarine sandwich is cut into 13 equal sections, how many **inches** long will each section be? Round your answer to the nearest tenth if necessary.
- A. 156 inches C. 0.2 inch
 B. 2.3 inches D. 2.8 inches

Name: _____

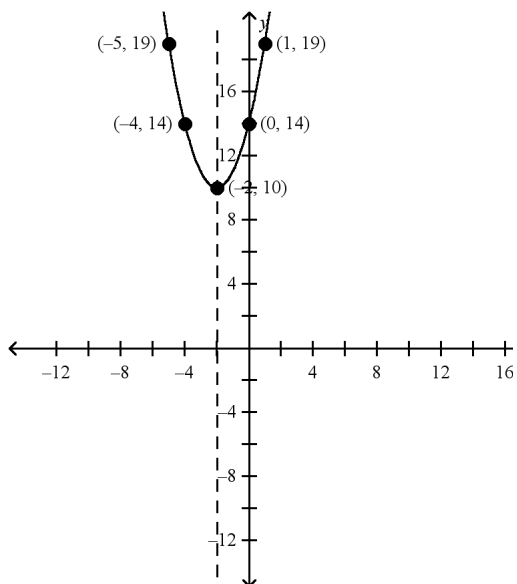
ID: A

- 37) My room is 12'x9'. If 9 square feet=1 square yard, how many square yards of carpet do I need to buy to cover my floor?
A. 2 square yards B. 12 square yards C. 108 square yards D. 972 square yards
- 38) Tom bought a new calculator from an office supplies store. After tax, the total came to \$67.20. If the sales tax rate is 5%, what was the price of the calculator before tax?
A. \$58.50 C. \$62.50
B. \$64.00 D. \$67.65
- 39) My room is 13'x17' with 8' walls. Each wall needs two coats of paint and each gallon of paint covers 300 square feet. How many gallons of paint do I need to buy?
A. 1 gallon B. 2 gallons C. 3 gallons D. 4 gallons

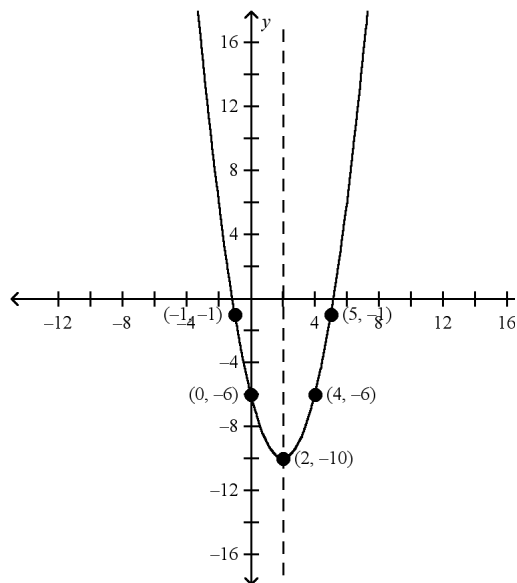
Graph the quadratic equation or inequality.

40) $y = (x-2)^2 - 10$

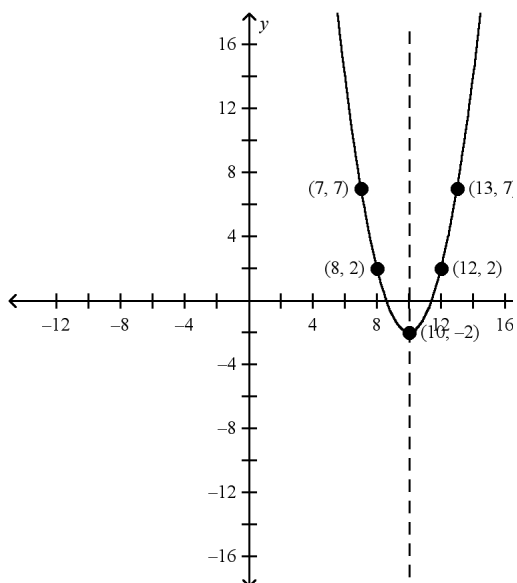
A.



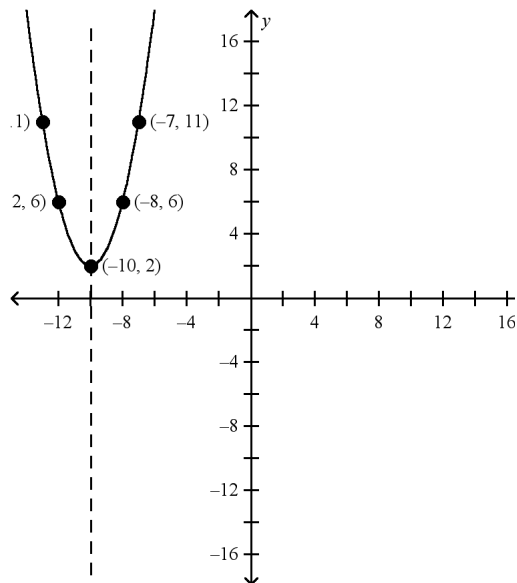
C.



B.

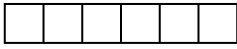


D.



ID: A

-
- The diagram shows three rectangles. The first rectangle is a single unit square. The second rectangle is divided into two equal vertical halves. The third rectangle is divided into three equal vertical thirds.



A. $\frac{1}{4}$

C. $\frac{1}{12}$

B. $\frac{1}{2}$

D. $\frac{1}{6}$

-
- A diagram of a celestial dome (hemisphere) used for measuring celestial objects. The dome is marked with degrees from 0 to 180 along its base. The base is labeled 'West' on the left and 'East' on the right. A stick figure stands at the center of the base. A red line points from the stick figure's head to a point on the dome labeled 'Moon'. Another red line points from the stick figure's head to the right edge of the dome, labeled 'Horizon'.

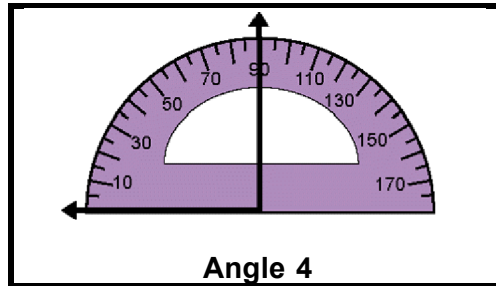
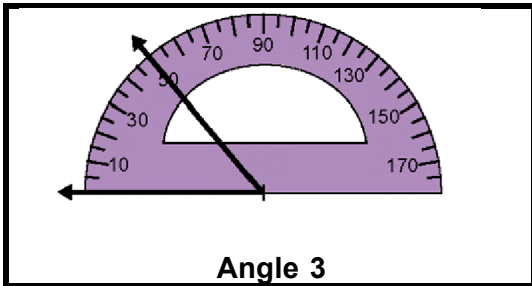
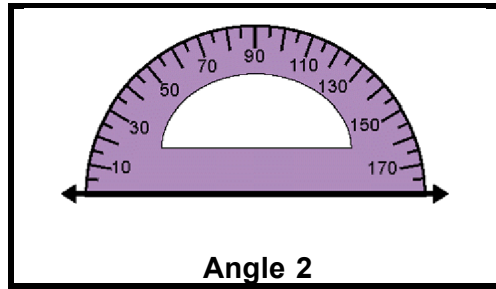
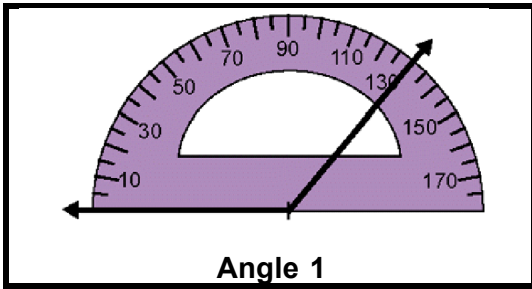
A. 45°

C. 55°

B. 135°

D. 145°

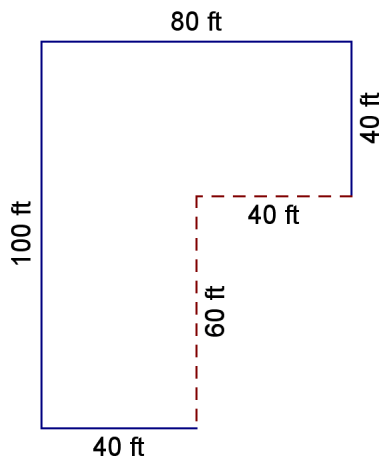
- 43) Ann measured four angles.



Which angle is the right angle?

- A. Angle 4
 B. Angle 2
 C. Angle 3
 D. Angle 1
- 44) Megan's backyard is enclosed by a fence and the house. A diagram of the backyard is shown below.

Area of a rectangle = length \times width



KEY

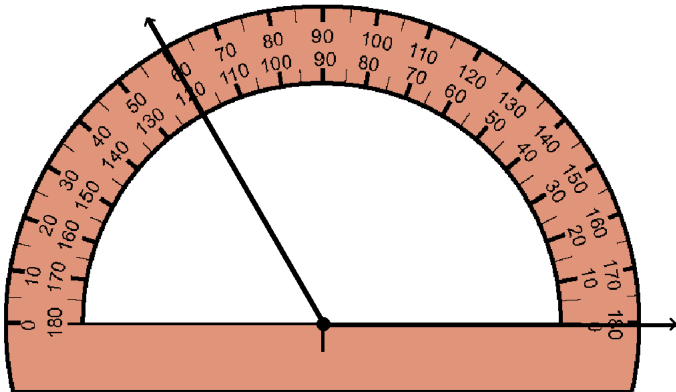
— fence

- - - house

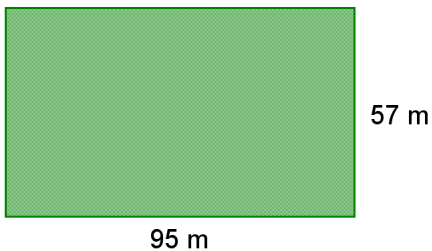
What is the area of Megan's backyard?

- A. 1,600 square feet
 B. 4,000 square feet
 C. 5,600 square feet
 D. 8,000 square feet

- 45) What is the measure of the angle on the protractor below?



- A. 125° C. 60°
B. 120° D. 115°
- 46) Winona makes about \$2,300 each month. Her parents are helping her plan a budget, and they recommend that she not spend more than 30% of her monthly income on rent. What is the maximum amount of money Winona can spend on rent each month and still stay within the budget guidelines?
- A. \$702 C. \$2,990
B. \$1,610 D. \$690
- 47) Last summer the cost of a bushel of corn rose from \$3.15 to \$3.59. What was the percent of increase in cost? Round your answer to the nearest tenth of a percent, if necessary.
- A. 14% C. 6.5%
B. 0.1% D. 12.3%
- 48) What is $\frac{2}{5}$ of 15?
- A. 6 B. 75 C. 5 D. 30
- 49) Coach Kwan is painting lines in the field behind the school for her students to play field hockey during physical education class. The field of play will be 95 meters by 57 meters when completed. How many linear meters of paint will Coach Kwan need to mark the boundaries of the hockey field?



- A. 209 meters C. 304 meters
B. 5415 meters D. 152 meters
- 50) What is $6 \times 2\frac{1}{3}$?
- A. 12 B. 15 C. 14 D. $12\frac{2}{3}$

PRACTICE Final Exam - Strategies In Math -Tri 3 2014 - Wiltsie
Answer Section

- 1) C
- 2) A
- 3) A
- 4) D
- 5) C
- 6) A
- 7) C
- 8) B
- 9) C
- 10) A
- 11) C
- 12) C
- 13) D
- 14) A
- 15) D
- 16) B
- 17) A
- 18) B
- 19) B
- 20) A
- 21) A
- 22) A
- 23) D
- 24) A
- 25) C
- 26) B
- 27) D
- 28) B
- 29) C
- 30) C
- 31) C
- 32) B
- 33) B
- 34) C
- 35) C
- 36) D
- 37) B
- 38) B
- 39) D
- 40) C
- 41) B
- 42) A

- 43) A**
- 44) C**
- 45) B**
- 46) D**
- 47) A**
- 48) A**
- 49) C**
- 50) C**